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ABSTRACT

An investigation was made into the dependency of student behaviors on teacher behaviors in a physical education setting. It was assumed that the interaction between students and teachers as well as the time spent in skill-practice play a prominent role in learning. An effort was made to determine if students' behavior profiles differ in male, female, or coed classes, and if behaviors vary according to the subject matter taught. Three hundred secondary school students were observed during team sports, gymnastics, and track and field lessons. Three major findings are discussed: (1) A student spends a high majority of class time in "non-movement." Motor activities account for approximately 30 per cent of the class time. (2) Difference in the students' use of time according to the subject matter revealed that the matter taught or the attendent class organization plays a more striking role than the gender grouping itself. (3) Communication between a student and teacher takes mainly an active-passive character. (JD)

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INTERACTIONS BETWEEN TEACHER AND STUDENTS IN A PHYSICAL EDUCATION SETTING

OBSERVATION OF STUDENTS'BEHAVIORS

By

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Teaching analysis attempts to provide a mirror for behavior, an objective image of what is going on in the class. Most of the analysis systems focus primarily on verbal teacher behaviors. However one observes a trend toward better accounts for students'behaviors.

Some observation schedules were developped to cope with specific students behaviors. LEWIS (1977, 17) used a very simple four category system. The system allows extremely limited interpretation of data. The Dalhousie Pupil Observation Schedule (B. RUSHALL, n.d.) (DPOS) describes the students'task performance, their interactions, their questionning etc... J. CHEFFERS, J. BRUNELLE and R. VONKELSCH (1978) devised the Individual Reaction Gestalt, a reliable tool for measuring student involvement in "recreo-educational" settings. In a system labeled BESTPED students behaviors are recorded in a multidimensional analysis system including the function, the mode, the content, the time dimensions (S. LAUBACH, 1974, J. COSTELLO & S. LAUBACH, 1978, 12).

Since many students'behaviors depend on teachers'behaviors and the time spent in skill practice plays a prominent role in learning, we have outlined a multidimensional system directed at linking the duration of students'behaviors, to teachers'behaviors related to the organizational structure of the class.

In this paper, we shall determine if : (1) students' behaviors profiles differ in boys, girls or coed classes. (2) students'behaviors profiles vary according to the subject matter taught : specifically gymnastics, team sports or track and field.

METHOD

1. Observation category system

1.1 Students'behaviors.

1.1.1 motor activity, divided in two sub-categories : the student (1) must make some decisions in performing the task or (2) just follow a model clearly defined by the teacher.

1.1.2 organizational activities, such as setting up materials or equipment.

1.1.3 verbal activities, subdivided in interactions with teacher (initiative or reaction) and interactions with other students.

1.1.4 no activity, subdivided in silent listening or attention, awaiting, inactivity expressed by uninterest or inappropriate off-task behaviors.

Rules for coding were described in detail by J.M. HAAN, 1978, 28.

1.2 Duration. Behaviors were timed

1.3 Teacher's behaviors. The simplified form of the DE LANDSHEERE-DAYER observational system (1975, 57) was used to record teacher's behaviors. Only behaviors affecting the observed student considered as an individual, as a member of a group or as a member of the class were recorded. Coding rules adapted for physical education were described by M. DEMARTEAU & M. PIERON (1978, 101).

1.4 Organizational structure of the class : activity of the whole class in a single task, group activity on similar tasks, on different tasks, individual activity on similar tasks, on different tasks.

2. Observations

Three hundred students (5 th to 7 th grades) from two high schools in Luxembourg were observed during team sports, gymnastics and track and field lessons. Students, choosen randomly, were observed during three minutes periods. The total observation time amounted to 900 minutes.

3. Reliability checks

The total percentage of agreement was equal to 93 %. The category duration reliability amounted to 91 %.

4. Data processing

Data were compared by the chi square test to show overall differences. (DAYHAW, 1966, 373).

RESULTS & DISCUSSION

1. Students'behaviors

It arises from the observations that students took part in motor activities (29,9 %), received information (22,7 %) and awaited (32,1 %) accounting for a total of 84.7 % of the class time.

Statistical analysis yielded no significant differences in motor activity durations at the .05 level of probability when comparing boys (29.0 %) girls (27.3 %) and coed classes (35.6 %).

Subject matter comparisons differed significantly at the .01 level : gymnastics = 22.3 %, track and field - 16.6 % and team sports - 51.0 % (X^2 = 82,59, df = 6).

Some authors have already observed that male and female teachers did not fundamentally differ in their teaching approach (J. CHEFFERS § V. MANCINI, 1978, 47, M. PIERON & J. HACOURT, 1979). Few differences appeared between elementary and secondary level (W. ANDERSON & G.BARRETTE, 1978, 32, J. CHEFFERS & V. MANCINI, 1978, 47, M. PIERON § J. HACOURT, 1979).

Students spent almost one fourth of their time in receiving information. Most of this information was directed to the class. Our data agreed with those of J. COSTELLO and S. LAUDACH (1978, 16) who reported a percentage of 25.4. No difference appeared between groups or subject matters.

Students spent 37.9 % of their time in awaiting or in inactivity or off-task behaviors. Once again these figures are very close to those of J. COSTELLO and S. LAUDACH (1978, 16) : 35.4 %.

Differences between girls, boys and coed classes also were not significant. However differences according to subject matter were highly significant : gymnastics 33.4 %, team sports 15.7 % and track and field 46.6 % ($P = .01$, $X^2 = 76,45$, $df = 6$).

The percentage of student movement time in track and field was surprisingly low (only 15 %). Perhaps teachers must seek out different approaches, more appropriate teaching strategies and more reinforcing and encouraging events in order to increase student movement.

2. Teacher-student interactions

Seventy percent of students'behaviors are emitted outside any direct contact with the teacher. At best, one may only guess that some students'behaviors occured under the teachers'observation. W. ANDERSON & G. BARRETTE (1978, 33) observed that a teacher spent approximately 21 % of his time in students'observation.

When observing one student at a time the amount of non-interactive time was quite high but not significantly different when gender grouping variables and subject matter variables were compared : 70.3 % in boys, 73.1 % in girls and 64.6 % in coed classes, 72.3 % in gymnastics, 71.1 % in team sports and 67.2 % in track and field.

The reader is reminded that this does not mean that the teacher was inactive, only that he was not interacting with the target student.

It must be emphasized that teacher-student relationships took an active-passive character. Students were mostly engaged in passive listening to a teacher speaking to the whole class.

The most frequent students' and teachers'behaviors occuring simultaneously confirmed that view : content statements from the teacher associated with students'passive listening amounted to 37.9 % all the concurrent behaviors ; teacher's organizational statements and students'organizational activity : 10 %, teachers'demonstration or use of visual aid and students'attention, 7.1 %.

An individual teacher-student interaction through events of affectivity remained scarce as shown by a 2.4 % of negative feedback associated with students'attention. Feedback was primarely directed to a single student (M. PIERON & C. DEVILLERS, 1978 - S. FISHMAN & C. TOBEY, 1978, 56). Some content interventions played a role in neutral feedback.

The 6.9 % value of teacher development function connected to student's verbal initiative must be underscored. The development functions emphasize the student's personal contribution to interactive events. These events are supposed to be highly beneficial to the students'education.

CONCLUSIONS

Three major findings have to be pointed out in this study :

1. A student spends a high majority of class time in "non-movement". Motor activities account for approximitaly 30 % of the class time.
2. Differences in the students'use of time according to the subject matter revealed that the matter taught or the attendent class organization plays a more striking role than the gender grouping itself (boys, girls or coed classes).
3. Communication between a student and a teacher takes mainly an active-passive character.

In emphasizing the time spent on a task and the individual teacher-student relationships, data gathered in observing students'behaviors add more depth to the analysis of teacher-student interactions based primarily on teacher's behaviors alone.

REFERENCES

ANDERSON W.G. § BARRETTE G.T. : Teacher behavior. in : ANDERSON W.G. & BARRETTE G.T. (editors) : What's going in gym : descriptive studies of physical education classes. Monograph 1, Motor skills : Theory into practice. 1978, 25-38.

CHEFFERS J.T.F. & MANCINI V.H. : Teacher-student interaction. in : ANDERSON W.G. § BARRETTE G.T. (editors) : What's going on in gym : descriptive studies of physical education classes. Monograph 1, Motor skills : Theory into pratice. 1978,39-50.

CHEFFERS J.T.F., BRUNELLE J. & VON KELSCH R. : Measuring student involvement. Paper presented at the AIESEP International Conference, Magglingen 1978.

COSTELLO J. & LAUBACH S.A. : Student behavior. in : ANDERSON W.G. & BARRETTE G.T. (editors) : What's going on in gym : descriptive studies of physical education classes. Monograph 1, Motor skills : Theory into practice. 1978, 11-24.

DAYHAW L.T. : Manuel de statistique. 3e ed., Ottawa (Ed. Univ. Ottawa), 1966.

DE LANDSHEERE G. & BAYER E. : Comment les maîtres enseignent, Bruxelles, Minis. Educ. Nat., 1975.

DEMARTEAU M. & PIERON M. : Analyse des communications verbales entre un professeur d'éducation physique et ses élèves. in : PIERON M. (editor) : Towards a science of teaching physical education : teaching analysis, Liège (A.I.E.S.E.P.), 1978, 98-124).

FISHMAN S. & TOBEY C. : Augmented feedback. in : ANDERSON W.G. & BARRETTE G.T. (editors) : What's going on in gym : descriptive studies of physical education classes. Monograph 1, Motor skills : Theory into practice.1978, 51-62.

HAAN J.M. : Analyse du comportement d'élèves pendant les activités physiques et sportives. Interactions avec le professeur, mémoire de licence, stage pédagogique Luxembourg, 1978-79,n.p.

LAUBACH S.A. : The development of a system for coding student behavior in physical education classes., Ed. D., Columbia Univ., New York, 1975.

LEWIS G.T., A practical system for observing and evaluating student behavior in physical education, Phys. Educator, 34, 1977, 17-19.

PIERON M. & DEVILLERS C. Multidimensional analysis of informative feedback in teaching physical activities, Paper delivered at the AIESEP International Conference, Magglingen,1978.

PIERON M. & HACOURT J. : Comportements d'enseignants des activités physiques à différents niveaux d'enseignement, Bull. Fed. Int. Educ. Phys. (submitted for publication).

RUSHALL B. : Behavior category definitions for the Dalhousie athlete observation schedule (DAOS) and the Dalhousie pupil observation schedule (DPOS), Mimeo, Doc., 4 p.

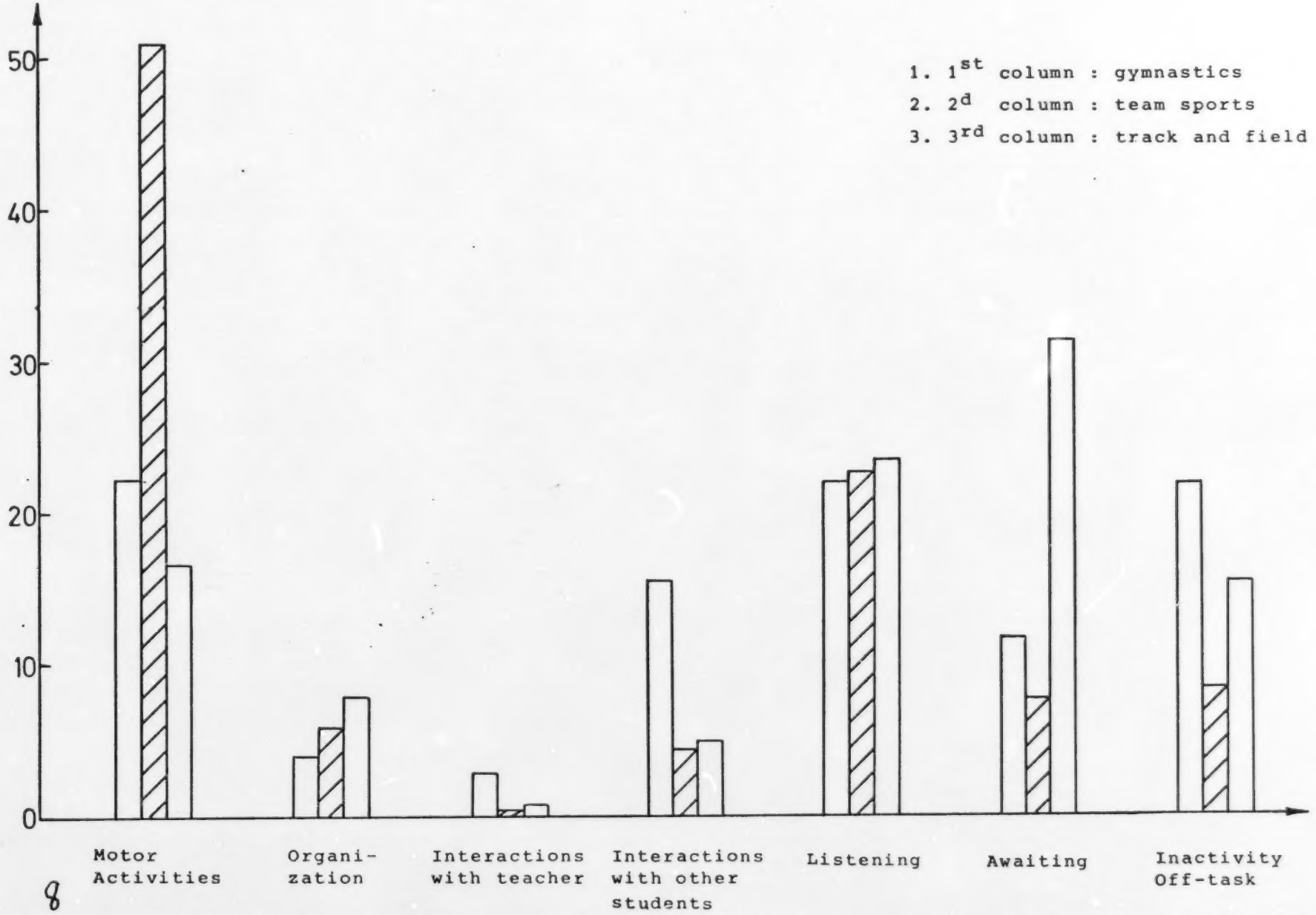

Fig. 1 - Percent of classtime devoted to each category